

BO CHEN

443 · 546 · 5885 | bo.chen@colostate.edu

Education

Texas A&M University Ph.D. in Atmospheric Sciences	September 2019 – August 2025 <i>Cumulative GPA: 3.7/4.0</i>
University of Maryland B.Sc. in Geography and Atmospheric & Oceanic Sciences (Double Major)	September 2014 – May 2019 <i>Cumulative GPA: 3.3/4.0</i>

Research and Work Experience

Sonia Kreidenweis Lab *Postdoctoral Fellow* **October 2025 – present**
Colorado State University

- Analyze INP data from Arctic airborne campaigns.
- Perform FLEXPART simulations and analysis.
- Merge airborne aerosol size distribution measurements.

Sarah Brooks Lab *Graduate Research Assistant* **September 2019 – August 2025**
Texas A&M University

- Conducted aerosol and ice-nucleating particle research using laboratory, field, and remote-sensing measurements.
- Developed data analysis tools and processing workflows for atmospheric measurements.
- Contributed to instrument testing, field campaign operations, and aerosol size distribution analysis.

Ning Zeng Lab *Undergraduate Research Assistant* **September 2018 – May 2019**
University of Maryland

- Performed a quantitative study on anthropogenic wildfire carbon emissions.

Selected Publication

- [1] Chen, Bo, Sarah D. Brooks et al., “The boundary layer’s effect on aerosol vertical distribution in an urban coastal environment: Insights from the TRACER campaign,” *in prep*.
- [2] Chen, Bo, S. A. Thompson, B. H. Matthews, M. Sharma, R. Li, C. J. Nowotarski, A. D. Rapp, and S. D. Brooks, “A new technique to retrieve aerosol vertical profiles using micropulse lidar and ground-based aerosol measurements,” *Atmospheric Measurement Techniques*, 18, 5841–5859, 2025.
- [3] A. D. Rapp, S. D. Brooks, C. J. Nowotarski, M. Sharma, S. A. Thompson, Chen, Bo, B. H. Matthews, M. Etten-Bohm, E. R. Nielsen, and R. Li, “TAMU TRACER: Targeted mobile measurements to isolate the impacts of aerosols and meteorology on deep convection,” *Bulletin of the American Meteorological Society*, vol. 105, no. 9, E1685–E1702, 2024.
- [4] Z. Lei, Chen, Bo, and S. D. Brooks, “Effect of acidity on ice nucleation by inorganic–organic mixed droplets,” *ACS Earth and Space Chemistry*, 2023.
- [5] Chen, Bo, J. A. Mirrielees, Y. Chen, T. B. Onasch, Z. Zhang, A. Gold, J. D. Surratt, Y. Zhang, and S. D. Brooks, “Glass transition temperatures of organic mixtures from isoprene epoxydiol-derived secondary organic aerosol,” *The Journal of Physical Chemistry A*, 2023.
- [6] J. A. Mirrielees, Chen, Bo, M. R. Moreno, S. D. Brooks, et al., “What to wear: The filtration performance of alternative materials used to construct do-it-yourself masks,” *Aerosol and Air Quality Research*, vol. 21, no. 8, p. 200633, 2021.

Conference Presentation

- [1] Aircraft Observations of Ice Nucleating Particles during Cold-Air Outbreak Events. *AMS Annual Meeting*, Oral Presentation, January 2026.
- [2] Impacts of Planetary Boundary Layer Characteristics on Aerosol Vertical Distribution in a Coastal Urban Environment. *AGU Fall Meeting*, Poster, December 2024.
- [3] Retrieving Vertical Profiles of Aerosols and Their Cloud Nucleating Properties Using the Micropulse Lidar. *AMS Annual Meeting*, Oral Presentation, January 2024.
- [4] Aerosol Vertical Profile Retrievals Based on Micropulse Lidar and Surface Aerosol Measurements During TRACER Campaign. *AGU Fall Meeting*, Poster, December 2023.
- [5] Glass Transition Temperatures of Organic Mixtures from Isoprene Epoxydiol (IEPOX)-Derived Secondary Organic Aerosol. *AAAR Annual Conference*, Poster, October 2022.

Awards and Honors

Outstanding Graduate Student Research Award
Dean's List

Texas A&M University 2024
University of Maryland 2014, 2015, 2017

Other Experience

Deep Learning Learning Club

Summer 2024

Co-founder

- Founded and organized the Deep Learning Learning Club for graduate students and faculty to explore deep learning models and their applications in atmospheric sciences.

Gamer Symphony Orchestra at the University of Maryland

2018 – 2019

Violin II Section Leader

- Performed solos, led sectionals, and worked with the conductor to refine musical details such as bowing, tone, and phrasing.

Technical Skills

Computer Programming Analytical Skills

Proficient in Python, with experience in Fortran, C, Java, and Matlab. Machine learning, statistical analysis, numerical modeling, data visualization, remote sensing, and geospatial analysis (ArcGIS).

Engineering and Design

GUI development (PyQt), 3D CAD modeling (Solidworks), electronic and PCB design (KiCAD), 3D printing, digital photography, graphic design (Photoshop, Illustrator), and video editing (Premiere Pro).

Laboratory Instrumentation

Atmospheric lidar, Raman microscopy, scanning mobility particle sizer, optical particle counter, cloud condensation nuclei counter, continuous flow diffusion chamber, and aerosol mass spectrometer.